

## Congress of the United States House of Representatives Committee on Government Reform

Steroid Use Among Females

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The use of anabolic steroids has come into the spotlight over the last several months. The attention has been focused on professional sports. However, the use of steroids in professional sports may have a trickle down affect to college athletes, high school athletes, and non-athletes. Recently, new studies have brought the use of steroids by females, both athletes and non-athletes, to the forefront.

Anabolic steroids are ergogenic aids. Anabolic steroids are adrogenic and are derivatives of the male hormone testosterone. No pure anabolic compound exists. That is to say, that these substances also have androgenic properties or male hormonal effects. Designer steroids are made to increase the anabolic to androgenic ratio. These designer steroids are suppose to produce more benefit with less androgenic side effects. Some designer steroids are well know as they made so as not to be detected by routine drug testing, such as THG.

Incidence rates are often hard to determine. A study in Journal of the American Medical Association from 1988 estimated that between 1.4% to 11% of Junior and Senior High students have taken steroids. A more recent survey by the Center for Disease Control, stated that 5% of High School girls have used steroids. In this study, 7% of 9<sup>th</sup> grade girls also used steroids without a prescription. These statistics compel us to address the use of steroids in females.

An annual drug use survey by the National Institute on Drug Abuse showed that most High School users were male, including data from 2004. 3.4% of 12<sup>th</sup> graders and 2.4% of 10<sup>th</sup> graders. This survey is conducted yearly, and the largest increase was seen during the 1990's. This years results had a similar incidence rate as last year.

A study of 75 female athletes from gyms in Boston, Houston, and Los Angeles showed that one third of these females reported present or past steroid use. 19 Reported at least one medical problem, at least one serious kidney problem was also reported. 16 reported psychological side effects. 55 of the 75 females were found to have ED/BT (eating disorder/body builder type).

The true incidence rate among females is difficult to determine. Dr. Linn Goldberg from

Oregon Health and Science University have shown an increase usage rate among non-athletes. Less than 4% of 18,000 US High Schools test for steroids according to a 2003 survey. There hasn't been much investigation into the rate of use among females, especially non-athletes. Females may not want to reveal their use as it is done illegally and weight control and beauty secrets of young women may not be readily discussed by them.

Anabolic steroids are generally used to help increase muscle mass and strength when combined with appropriate training. Two or more steroids taken together ("stacking") occur in cycles of 6 to 12 weeks. This use can increase normal androgenic levels to 10 to 40 times above normal range in males. The full benefit of the ergogenic benefit is incompletely studied as well as hormonal levels in females.

There may be several reason why females, both athletic and non athletic may abuse anabolic steroids. Certain steroids are believed to have appetite suppressant effects. Some of these steroids are suppose to burn fat at a faster rate. Males naturally have a higher percentage lean body mass (muscle) and a lower percent body fat when compared to females. It is believed that testosterone plays a major role in this weight distribution. All of these methods may help control body weight without building a muscle bound body. In other words, to change one's ratio of fat to muscle and become more lean and muscular. In search of that perfect body, by becoming thin without that unhealthy anorexic appearance.

Certain steroids are believed to have these properties. Some of these include clenbtuterol, cytomel, parabolan, and pherformin. Data on the benefits of these drugs is based on little scientific dat and mostly self reports.

The adverse effects of anabolic steroid use include benign and malignant liver tumors, toxic hepatitis, and hepatocellular carcinoma. Kidney dysfunctions have been reported as the kidneys filter toxins in the body. Skin acne, oily skin, and the skin becoming more coarse are common occurrences. Using anabolic while your growth plates are still open can lead to premature closure. These growth plates if closed will not reopen.

Cardiovascular side effects include increased risk of heart attacks and sudden death which can be caused by acute thrombosis (blood clots). There can be an increase in LDL (bad cholesterol) and a decrease in HDL(good cholesterol). Heart disease will occur at a faster rate due to accelerated plaque deposition.

Psychological side effects may occur early. Moodiness, irritability and aggressiveness are common. Violent acts may occur which are sometimes referred to as roid rage. An increased rate of anxiety and depression have been reported. Steroid users often become socially isolated for many of these reasons. There can be withdrawal side effects and risk of addiction to steroids.

Females can be virilized by using anabolic steroids. The use of steroids can give them androgenic side effects or masculinization (secondary male characteristics). They get increased body and facial hair. The voice can become deeper. Their hair can become thinner and they can develop male pattern baldness. Breast size may decrease. There may be a decrease in fertility or a decrease in the ability to become pregnant.

Other associated problems include HIV transmission thru the use of shared needles. Reports that up to 25% of steroid users share needles. It also increase the risk of transmitting infections and hepatitis. There is an increase in the use of other drugs and alcohol in steroid users. There are no long term studies that look at side effects. These side effects may only be the tip of the ice berg, as we don't know what other long term side effects may occur.

There are other areas of concern that are related to this topic that must be mentioned.

There are numerous over the counter steroid precursors that should be investigated. Over the counter stimulants, energy boosters, bars, and drinks. They may be used to enhance performance, but also may be used for weight control and as appetite suppressants. Some contain strong stimulants which can be dangerous. Many are marketed in misleading ways and presented as soft drinks or candy. The use of prescription stimulants may also be used for weight control. Amphetamines, ritalin, and adderal are only some these drugs.

Teammates and peers should deplore the use of steroids. Coaches and parents should have a no tolerance policy and may need to intervene. Advocate fair play to protect the integrity of sports competition. Educate people of the health risks of steroid use and the warning signs of steroid use. Teach them the medical facts about steroids, and dispel the gym myths about their priceless benefits.

There are many things we should all be on the look out for. New designer steroids which will be harder to detect. Know what the signs of abuse are and keep a look out for them. If a supplement is too good to be true, then don't believe it. Know how to read a label. There should be more control of what is on the label, but also what inside the bottle. Better control of sales and distribution of steroids because it is too easy to obtain. Steroids are only one of many ergogenic and cosmetic aids. We shouldn't overlook, Human Growth Factor, Insulin Growth Factor, amphetamines and others.

Thank-you.